

DEPARTMENT OF  
NATURAL RESOURCES AND CONSERVATION



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SOUTH WOOD TIMBER SALE PROJECT  
FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)

August 13, 2001

Enclosed is a copy of the South Wood Timber Sale Project FEIS Executive Summary.

The proposed project is located approximately 13 miles southwest of Swan Lake, Montana in Swan River State Forest.

I have chosen Action Alternative F as the proposed decision. Action Alternative F is a new alternative that represents a modification of Action Alternative C, which was analyzed in the DEIS. The primary modification is that Action Alternative F does not harvest in old-growth stands. I anticipate issuing a Decision Notice or a separate Record of Decision fifteen calendar days after publication of the FEIS.

DNRC has made the necessary adjustments in the FEIS to reflect the most current old-growth situation.

The Executive Summary is written in a different format than previous Swan River State Forest publications. The Summary incorporates pictures to convey information and is written so that a person at any interest level is able to understand the contents. I welcome your thoughts and comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert L. Sandman".  
Robert L. Sandman, Manager  
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RLS:wh(mb  
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cc: South Wood TS

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Vol. 1



Swan River State Forest  
Office



Swan River State Forest  
Compound Sign



Landscape



A logger putting in  
an undercut to fell  
this tree.



Limbing felled logs



Feller-buncher



Landing site

Swan River State Forest, Montana Department of Natural Resources and Conservation, is planning a timber sale that would log 4.5 to 6 million board feet (1,000 to 1,200 log truck loads) of timber. The trees would be harvested from 300 to 670 acres. The South Wood Timber Sale Project area is located approximately 10 miles southwest of Swan Lake, Montana in Sections 2, 10, 12, 14, 16, 22, 23, 24, 26, 28, 30, 32, and 36, Township 23 north, Range 18 west. In addition to logging timber:

- roads would be repaired so water could drain off the surface of the road, the roads would be safer to drive, and the quality of the stream water would not be jeopardized;
- depending on which alternative is chosen, one-half mile to 5.5 miles of new road would be constructed; and
- an old collapsed bridge on Main Woodward would be removed, and the site rehabilitated to improve water quality.

The sale would be sold in the fall of 2001. Road building/improving and logging would stretch over a 2-year period. Money made from the timber would be put into the school trust for operating schools. The areas where most of the trees are removed (a regeneration harvest) would be prepared to grow new trees. The areas where single trees are cut here and there (thinned) would allow the remaining trees to grow bigger and stronger, giving those trees space to grow.



Seedtrees



Culvert installed to  
prevent sediment from  
entering the stream



Recreation



Money earned from  
timber sales helps  
support schools



Harvested logs enroute  
to the sawmill to be  
manufactured into  
boards and other  
products



White-tailed fawn

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## PUBLIC CONCERNS

In February 2000, a letter was mailed to the public informing them of the planned South Wood Timber Sale Project. A mailing list was developed at this time. In this letter, we asked people to let us know about their concerns for this project. Later, while we were in the process of developing the timber sale project, a newsletter update was sent to the people on the mailing list. The newsletter again asked these people to tell us of their concerns. Their responses helped us plan the timber sale.

By studying these concerns, along with the concerns of other agencies and DNRC employees, we found we needed to further study and explain how the proposed timber sale project would affect the following resources:



Snag in  
Lodgepole pine forest

- Vegetation (trees)
- Water Quality
- Fisheries
- Wildlife
- Threatened and Endangered Species
  - Bald eagle
  - Canada lynx
  - Grizzly bear
  - Northern Rock Mountain wolf



Mountain stream



Grizzly bear



Canada Lynx



Bald eagles



Rainbow trout



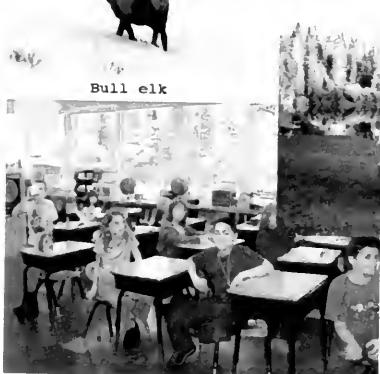
Northern Rocky Mountain Wolf



Pileated woodpeckers



Bull elk



Students attending Swan Valley School

- Sensitive Species
  - Boreal owl
  - Fisher
  - Pileated woodpecker
- Big Game Species -  
White-tailed deer
- Soils
- Economics
- Recreation
- Air Quality
- Aesthetics (how things look visually)
- Cultural Resources (remains left from historic human activity)



Recreational fly fishing



White-tailed buck



Enjoying the great outdoors



Boreal owls



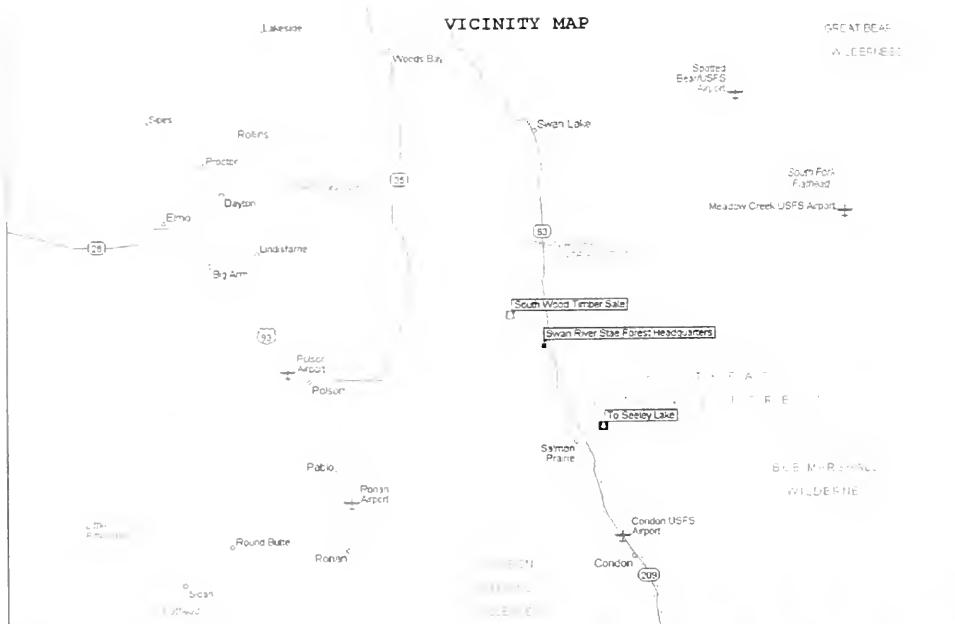
Landscape view



Photograph taken of landscape around 1900

## DEVELOPING THE PROJECT AND DISPLAYING THE OPTIONS

A team made up of foresters, a lawyer, an economist, a road engineer, and water, wildlife, and planning specialists was formed. This team was called the Interdisciplinary Team, or ID Team. After studying the concerns, 5 possible choices (alternatives) were developed. Each alternative was designed to address a particular concern or group of concerns.



### No Action Alternative I

- No trees would be cut.
- No roads would be built or improved.
- Everything would remain the same as it is.
- Road maintenance, firefighting, recreating, and timber salvaging would continue as it does now.

### III. Action Alternatives

With each action alternatives, we are trying to bring our forest stands back to the tree species that were here before man started fighting fires and harvesting trees (the historic condition). Therefore, the type, number, and age of the trees that existed historically would be kept.

No trees would be harvested within the area defined as the old-growth network (a group of old-growth stands that have a high value for wildlife species) in Swan River State Forest, though some alternatives would construct roads



A photo of a western larch/Douglas-fir timber stand that was taken in the Swan Valley around 1910.

through the network. Road drainage and safety would be improved. An old collapsed bridge on Main Woodward would be removed and the site would be returned to its condition before the bridge was installed many years ago.

The separate action alternatives (B through E) would also accomplish the following:

• **Action Alternative B would:**

- earn \$1,789,331 for the school trust.
- cut trees within the older timber stands. Larger-sized trees would earn more money for the trust than smaller-sized trees.
- build one-half mile of road and harvest stands on ground that is flat, which would help to keep the cost of logging down.
- cut trees in some timber stands that are identified as old growth.
- keep some large western larch and Douglas-fir trees to provide seed for new trees.
- keep some clumps of western red cedar and healthy young trees.
- plant small western white pine trees (seedlings) that are resistant to the blister rust disease.
- after cutting, be similar to what a very hot fire would do after it burns through an area and kills most of the trees.
- harvest 6 million board feet (approximately 1,200 log truck loads) of timber from 313 acres.



Some large Douglas-fir and western larch would be left for seed.

• **Action Alternative C would:**

- earn \$1,173,837 for the school trust.
- remove trees by logging to thin the forest, so that the health and growth of the remaining trees will improve.
- leave approximately 100 western larch and Douglas-fir trees per acre after harvesting.
- cut trees in some timber stands identified as old growth.
- build 2.8 miles of road.
- keep some clumps of western red cedar and healthy young trees.
- after cutting, be similar to a slow-moving, not-so-hot fire that would only kill trees that have thin bark, such as lodgepole pine and grand fir. These are the type of trees that would be removed from the harvest area.
- harvest 5.4 million board feet (approximately 1,080 log truck loads) from 630 acres.



Appr. 100 western larch and Douglas-fir trees would be left per acre.

- **Action . Alternative D would:**

- earn \$1,196,500 for the school trust.
- thin the forest and improve the health and growth of the remaining trees by harvesting trees.
- removes 6 acres of identified old growth by clearing trees where roads would be constructed.
- construct 5.4 miles of new road.
- after cutting, be similar to a slow-moving, not-so-hot fire that would kill only trees that have thin bark, such as lodgepole pine and grand fir; these are the types of trees that would be removed from the harvest areas.
- harvest 5.3 million board feet (1,060 log truck loads) from 670 acres.



A stand after thin-barked trees, such as lodgepole pine and grand fir, are removed from the harvest area.

- **Action . Alternative E would:**

- earn \$1, 310,948 for the school trust.
- focus on improving Swan River State Forest's road system. Roads would be developed into areas where future timber sales would take place. The timber sale would provide money to improve the existing road system.
- cut trees in some timber stands identified as old growth.
- construct 4.8 miles of new road.
- after harvest, be similar in some stands to a slow-moving, not-so-hot fire that would kill only trees that have thin bark, such as lodgepole pine and grand fir; these are the types of trees that would be removed from some of the harvest area.
- after harvesting, be similar in other stands to what a very hot fire would do as it burns through an area and kills most of the trees.
- harvest 5.8 million board feet over 570 acres.



Similar to a timber stand that had a slow-moving, not-so-hot fire burn through.

Laws that came into effect and lawsuits that have been filed while the South Wood Timber Sale Project was being developed have made us uncertain as to how to manage old growth with this project. The decisionmaker for this project, Bob Sandman, directed the ID Team to develop an additional alternative that has as little harvesting in old growth forests as possible. The following is that alternative:

- **Action . Alternative F would:**

- earn \$1,054,378 for the school trust.
- focus on not harvesting in identified old-growth stands; one-half acre of trees identified as old-growth would be harvested to clear trees to build a road.
- construct 2.3 miles of new road.
- after cutting, be similar to a slow-moving, not-so-hot fire that would only kill trees that have thin bark, such as lodgepole pine and grand fir; these are the types of trees that would be removed in some stands.
- be similar in other stands to what a very hot fire would do after it burns through an area and kills most of the trees.

## SUMMARY OF EFFECTS

The ID Team studied how the 6 alternatives would affect the resources (water, wildlife, etc.), previously listed. The following summary tells how the resources would be affected if the project does or does not take place.

### VEGETATION

Swan River State Forest does not contain tree species that would be expected if fires had been able to play their natural roles. Instead, the trees are species that are likely to be found in a forest that has not been burned by fire for a long time. The average number of trees per acre is higher and their ages are older than if fires had occurred.

Action Alternative B and portions of Action Alternatives E and F would harvest most of the trees. Young western larch, Douglas-fir, and western white pine seedlings would be planted or trees would grow from the seeds of the surrounding trees. These species are the types of trees that would grow after a very hot fire burned through the stands and killed most of the trees.

With Action Alternatives C, D, and portions of E and F, where western larch, Douglas-fir, and western white pine trees are already growing, some trees in the harvest units would be logged to give the remaining trees more room to grow (thinning).



Tree species would be different if fire had been able to play its natural role.

### WATER QUALITY AND FISHERIES

All of the action alternatives would improve the existing roads. The new roads and logging would be designed so soil (sediment) would not be carried to creeks and gravel where fish spawn as water drains from the roads during snowmelt and rainstorms. Grass seed would be planted in exposed soil along roads to stabilize the soil and prevent it from moving toward creeks. The planted grass would also help prevent weeds from growing along the roads. An old bridge on Woodward Creek would be removed. If the bridge collapses,

sediment and debris would fall into the creek. After the bridge is removed, the site would be restored to its original condition; grass seed would be planted to reduce the likelihood of soil eroding into the creek.



Actions are taken to make sure sediment and debris do not flow into creeks like this.

All of the action alternatives would slightly increase the amount of water flowing through the Woodward drainage. The slight increase would last several years until trees grow back, but would not noticeably change the water quality in the Woodward drainage.

## WILDLIFE

*Threatened and Endangered Species* - With the action alternatives, use of the harvest area (Woodward drainage) by bald eagles, grizzly bears, Canada lynx, and Northern Rocky Mountain wolves probably would not change. The new roads constructed with Action Alternatives C, D, E, and F could be used by other predators and trappers. This may change how lynx compete for food or increase the likelihood that a lynx may get caught in a trap.

*Sensitive Species* - The action alternatives would not change how boreal owls, fishers, and pileated woodpeckers use the Woodward drainage. Fishers prefer to use old-growth forests. Action Alternatives B and E remove some old-growth forests. New roads constructed by Action Alternatives C, D, E, and F could be used by trappers, increasing the likelihood that a fisher may get caught in a trap. Action Alternatives B, C, and E would reduce pileated woodpecker nesting habitat slightly by removing large trees.

*Big Game Species* - The action alternatives would not change how white-tailed deer use the Woodward drainage. Action Alternatives B, C, and E would harvest 35 acres of white-tailed deer winter range.



## ECONOMICS



Kindergarten students like these get their education with the help of the money made from timber sales on State trust land

If Action Alternative B were chosen, \$1,789,331 would be earned for the school trust. That is enough money to pay the cost of sending 297 Montana children to public school for one year. Action Alternative C would earn \$1,173,763, enough to pay the cost of sending 195 children to public school for one year. Action Alternative D would earn \$1,196,515, enough to pay the cost of sending 200 children to public school for one year. Action Alternative E would earn \$1,311,050, enough to pay the cost of sending 218 children to public school for one year. Action Alternative F would earn \$1,054,378, enough to pay the cost of sending 175 children to public school for one year. No-Action Alternative A would earn no money for the school trust.

#### **VIEW (AESTHETICS)**

Only the thinning units of Action Alternatives C, D, E, and F can be seen from Highway 83. These areas would appear as having fewer trees with small 1- to 2-acre openings. Along roads that are near the harvested areas, fewer trees and small openings would be seen. In Action Alternatives B and C, the harvest units that would be cut more heavily would appear as openings in the forest and would only be able to be seen from roads next to the units. Leaving strips of timber along these roads would provide some screening. Because these units are low on the hillsides and hidden behind the trees that are next to the highway, they are not visible from Highway 83.



Foreground and background views of Swan Peak from east of the project area.



Foreground and middleground views of the project area.

## SOUTH WOOD TIMBER SALE PROJECT PROPOSED DECISION

Robert L.Sandman, Unit manager for the Swan River State Forest, proposes to implement Action Alternative F. The following are some important reasons for proposing Action Alternative F.

- Action Alternative F is consistent with the goals, objectives, and standards of the State Forest Land Management Plan (SFLMP).
- Action Alternative F does not harvest in old-growth stands except for the clearing of trees for road construction on one-half acre. New laws have added to the uncertainty of managing old growth on State land. The old-growth issues will not likely be resolved by the time this project is implemented.
- Action Alternative F is silviculturally sound, accomplishes growth and health goals, reduces fire hazards, and begins to build some of the roads needed to manage the forest in the future.
- Action Alternative F provides for jobs and income (\$1,054,378) to people in northwestern Montana.
- Action Alternative F appears to best address the comments and issues submitted by the general public, does not harvest in old-growth stands, and provides benefits to water quality and fisheries in the long term by reducing chronic sources of sedimentation.



Action Alternative F would remove trees with insect infestations and disease infections and give the remaining trees room to grow.



By reducing sedimentation, water quality and fisheries would benefit in the long term.



The forest would move toward the condition that was historically on the landscape, as directed by the SFLMP.

## INFORMATION AND OVERVIEW OF THE FEIS

The Executive Summary of the Final Environmental Impact Statement (FEIS) is designed to encompass the Montana Environmental Policy Act (MEPA) rules. Information in this summary is written so that it is easily understood with the supporting photographs and maps.

The FEIS contains a more complete description of the purpose, development, analysis, and conclusions of the proposed project. The FEIS also has appendices on specific resources (water quality, wildlife, soil, etc.). The resource appendices were written by the ID Team and include lengthy technical discussions of methodologies, research, the monitoring of baseline studies, analyses, etc. The FEIS summarizes the resource appendices in plain language, thus, ensuring that all interested parties, regardless of their scientific or technical abilities, can understand this proposal and its effects.

Because the analysis work required highly advanced technical procedures and terminology, the information in the appendices would need to be utilized for any scientific, technical, or legal review.

To receive a copy of the South Wood Timber Sale Project FEIS and its resource appendices, contact Dan Roberson by calling (406) 754-2301 or writing to Swan River State Forest, 58741 Highway 83, Swan Lake, Montana 59911. The documents are also available at the [www.dnrc.state.mt.us](http://www.dnrc.state.mt.us) website.

The FEIS and appendices will be sent to people that have, over the course of this project, requested the documents. Following publication of the Final Environmental Impact Statement, Robert Sandman, Swan River State Forest Unit Manager, will choose an alternative, or a combination of alternatives. This decision will be recommended to the Montana Land Board. The Land Board has the ultimate decision responsibility.

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**10/22/2002**

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